



IFWO

RAW SEQUENCE LISTING

DATE: 09/23/2004

PATENT APPLICATION: US/10/693,164

TIME: 15:58:35

Input Set : A:\033072-092.ST25.txt

Output Set: N:\CRF4\09232004\J693164.raw

```

4 <110> APPLICANT: Loomis, Carson R.
5     Oakley, Robert H.
6     Wang, Shuntai
7     Eckhardt, Allen E.
9 <120> TITLE OF INVENTION: Methods of Identifying Reduced Internalization
10    Transmembrane Receptor Agonists
12 <130> FILE REFERENCE: 033072-092
14 <140> CURRENT APPLICATION NUMBER: US 10/693,164
15 <141> CURRENT FILING DATE: 2003-10-24
17 <150> PRIOR APPLICATION NUMBER: US 60/421,538
18 <151> PRIOR FILING DATE: 2002-10-25
20 <160> NUMBER OF SEQ ID NOS: 41
22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 5
26 <212> TYPE: PRT
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: amino acid motif
W--> 32 <221> NAME/KEY: VARIANT
33 <222> LOCATION: 3, 4
34 <223> OTHER INFORMATION: Xaa = Any Amino Acid
W--> 36 <400> 1
W--> 37 Asn Pro Xaa Xaa Tyr
38 1 5
41 <210> SEQ ID NO: 2
42 <211> LENGTH: 4
43 <212> TYPE: PRT
44 <213> ORGANISM: Artificial Sequence
46 <220> FEATURE:
47 <223> OTHER INFORMATION: amino acid motif
W--> 49 <221> NAME/KEY: VARIANT
50 <222> LOCATION: 4
51 <223> OTHER INFORMATION: Xaa = Any Amino Acid
W--> 53 <400> 2
W--> 54 Cys Ala Ala Xaa
55 1
58 <210> SEQ ID NO: 3
59 <211> LENGTH: 43
60 <212> TYPE: PRT
61 <213> ORGANISM: Homo sapiens
63 <400> SEQUENCE: 3
64 Asn Pro Ile Val Tyr Ala Phe Arg Ile Gln Lys Phe Arg Val Thr Phe

```

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```

65 1          5          10          15
66 Leu Lys Ile Trp Asn Asp His Phe Arg Cys Gln Pro Ala Pro Pro Ile
67          20          25          30
68 Asp Glu Asp Leu Pro Glu Glu Arg Pro Asp Asp
69          35          40
72 <210> SEQ ID NO: 4
73 <211> LENGTH: 176
74 <212> TYPE: PRT
75 <213> ORGANISM: Homo sapiens
77 <400> SEQUENCE: 4
78 Asn Pro Ile Ile Tyr Pro Cys Ser Ser Lys Glu Phe Arg Ala Phe Val
79 1          5          10          15
80 Arg Ile Leu Gly Cys Gln Cys Arg Gly Arg Gly Arg Arg Arg Arg
81          20          25          30
82 Arg Arg Arg Arg Leu Gly Gly Cys Ala Tyr Thr Tyr Arg Pro Trp Thr
83          35          40          45
84 Arg Gly Gly Ser Leu Glu Arg Ser Gln Ser Arg Lys Asp Ser Leu Asp
85          50          55          60
86 Asp Ser Gly Ser Cys Leu Ser Gly Ser Gln Arg Thr Leu Pro Ser Ala
87 65          70          75          80
88 Ser Pro Ser Pro Gly Tyr Leu Gly Arg Gly Ala Pro Pro Pro Val Glu
89          85          90          95
90 Leu Cys Ala Phe Pro Glu Trp Lys Ala Pro Gly Ala Leu Leu Ser Leu
91          100          105          110
92 Pro Ala Pro Glu Pro Pro Gly Arg Arg Gly Arg His Asp Ser Gly Pro
93          115          120          125
94 Leu Phe Thr Phe Lys Leu Leu Thr Glu Pro Glu Ser Pro Gly Thr Asp
95          130          135          140
96 Gly Gly Ala Ser Asn Gly Gly Cys Glu Ala Ala Asp Val Ala Asn
97 145          150          155          160
98 Gly Gln Pro Gly Phe Lys Ser Asn Met Pro Leu Ala Pro Gly Gln Phe
99          165          170          175
102 <210> SEQ ID NO: 5
103 <211> LENGTH: 29
104 <212> TYPE: PRT
105 <213> ORGANISM: Homo sapiens
107 <400> SEQUENCE: 5
108 Asn Pro Val Ile Tyr Thr Ile Phe Asn His Asp Phe Arg Arg Ala Phe
109 1          5          10          15
110 Lys Lys Ile Leu Cys Arg Gly Asp Arg Lys Arg Ile Val
111          20          25
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 29
116 <212> TYPE: PRT
117 <213> ORGANISM: Homo sapiens
119 <400> SEQUENCE: 6
120 Asn Pro Val Ile Tyr Thr Ile Phe Asn Gln Asp Phe Arg Arg Ala Phe
121 1          5          10          15
122 Arg Arg Ile Leu Cys Arg Pro Trp Thr Gln Thr Ala Trp

```

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Input Set : A:\033072-092.ST25.txt

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```

123          20          25
126 <210> SEQ ID NO: 7
127 <211> LENGTH: 31
128 <212> TYPE: PRT
129 <213> ORGANISM: Homo sapiens
131 <400> SEQUENCE: 7
132 Asn Pro Val Ile Tyr Thr Val Phe Asn Gln Asp Phe Arg Pro Ser Phe
133 1          5          10          15
134 Lys His Ile Leu Phe Arg Arg Arg Arg Arg Arg Gly Phe Arg Gln
135          20          25          30
138 <210> SEQ ID NO: 8
139 <211> LENGTH: 105
140 <212> TYPE: PRT
141 <213> ORGANISM: Homo sapiens
143 <400> SEQUENCE: 8
144 Asn Pro Ile Ile Tyr Cys Arg Ser Pro Asp Phe Arg Lys Ala Phe Gln
145 1          5          10          15
146 Gly Leu Leu Cys Ala Arg Arg Ala Ala Arg Arg Arg His Ala Thr
147          20          25          30
148 His Gly Asp Arg Pro Arg Ala Ser Gly Cys Leu Ala Arg Pro Gly Pro
149          35          40          45
150 Pro Pro Ser Pro Gly Ala Ala Ser Asp Asp Asp Asp Asp Asp Val Val
151          50          55          60
152 Gly Ala Thr Pro Pro Ala Arg Leu Leu Glu Pro Trp Ala Gly Cys Asn
153 65          70          75          80
154 Gly Gly Ala Ala Ala Asp Ser Asp Ser Ser Leu Asp Glu Pro Cys Arg
155          85          90          95
156 Pro Gly Phe Ala Ser Glu Ser Lys Val
157          100          105
160 <210> SEQ ID NO: 9
161 <211> LENGTH: 92
162 <212> TYPE: PRT
163 <213> ORGANISM: Homo sapiens
165 <400> SEQUENCE: 9
166 Asn Pro Leu Ile Tyr Cys Arg Ser Pro Asp Phe Arg Ile Ala Phe Gln
167 1          5          10          15
168 Glu Leu Leu Cys Leu Arg Arg Ser Ser Leu Lys Ala Tyr Gly Asn Gly
169          20          25          30
170 Tyr Ser Ser Asn Gly Asn Thr Gly Glu Gln Ser Gly Tyr His Val Glu
171          35          40          45
172 Gln Glu Lys Glu Asn Lys Leu Leu Cys Glu Asp Leu Pro Gly Thr Glu
173          50          55          60
174 Asp Phe Val Gly His Gln Gly Thr Val Pro Ser Asp Asn Ile Asp Ser
175 65          70          75          80
176 Gln Gly Arg Asn Cys Ser Thr Asn Asp Ser Leu Leu
177          85          90
180 <210> SEQ ID NO: 10
181 <211> LENGTH: 120
182 <212> TYPE: PRT

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Input Set : A:\033072-092.ST25.txt

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183 <213> ORGANISM: Homo sapiens

185 <400> SEQUENCE: 10

186 Asn Pro Ile Ile Tyr Ala Phe Asn Ala Asp Phe Arg Lys Ala Phe Ser

187 1 5 10 15

188 Thr Leu Leu Gly Cys Tyr Arg Leu Cys Pro Ala Thr Asn Asn Ala Ile

189 20 25 30

190 Glu Thr Val Ser Ile Asn Asn Asn Gly Ala Ala Met Phe Ser Ser His

191 35 40 45

192 His Glu Pro Arg Gly Ser Ile Ser Lys Glu Cys Asn Leu Val Tyr Leu

193 50 55 60

194 Ile Pro His Ala Val Gly Ser Ser Glu Asp Leu Lys Lys Glu Glu Ala

195 65 70 75 80

196 Ala Gly Ile Ala Arg Pro Leu Glu Lys Leu Ser Pro Ala Leu Ser Val

197 85 90 95

198 Ile Leu Asp Tyr Asp Thr Asp Val Ser Leu Glu Lys Ile Gln Pro Ile

199 100 105 110

200 Thr Gln Asn Gly Gln His Pro Thr

201 115 120

204 <210> SEQ ID NO: 11

205 <211> LENGTH: 22

206 <212> TYPE: PRT

207 <213> ORGANISM: Homo sapiens

209 <400> SEQUENCE: 11

210 Asn Pro Ile Ile Tyr Thr Thr Phe Asn Ile Glu Phe Arg Lys Ala Phe

211 1 5 10 15

212 Leu Lys Ile Leu His Cys

213 20

216 <210> SEQ ID NO: 12

217 <211> LENGTH: 22

218 <212> TYPE: PRT

219 <213> ORGANISM: Homo sapiens

221 <400> SEQUENCE: 12

222 Asn Pro Val Ile Tyr Thr Thr Phe Asn Ile Glu Phe Arg Lys Ala Phe

223 1 5 10 15

224 Leu Lys Ile Leu Ser Cys

225 20

228 <210> SEQ ID NO: 13

229 <211> LENGTH: 24

230 <212> TYPE: PRT

231 <213> ORGANISM: Homo sapiens

233 <400> SEQUENCE: 13

234 Asn Pro Val Ile Tyr Thr Val Phe Asn Ala Glu Phe Arg Asn Val Phe

235 1 5 10 15

236 Arg Lys Ala Leu Arg Ala Cys Cys

237 20

240 <210> SEQ ID NO: 14

241 <211> LENGTH: 123

242 <212> TYPE: PRT

243 <213> ORGANISM: Homo sapiens

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Input Set : A:\033072-092.ST25.txt

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245 <400> SEQUENCE: 14

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246 Asn Pro Val Ile Tyr Ala Phe Asn Ala Asp Phe Gln Lys Val Phe Ala
247 1 5 10 15
248 Gln Leu Leu Gly Cys Ser His Phe Cys Ser Arg Thr Pro Val Glu Thr
249 20 25 30
250 Val Asn Ile Ser Asn Glu Leu Ile Ser Tyr Asn Gln Asp Ile Val Phe
251 35 40 45
252 His Lys Glu Ile Ala Ala Ala Tyr Ile His Met Met Pro Asn Ala Val
253 50 55 60
254 Thr Pro Gly Asn Arg Glu Val Asp Asn Asp Glu Glu Glu Gly Pro Phe
255 65 70 75 80
256 Asp Arg Met Phe Gln Ile Tyr Gln Thr Ser Pro Asp Gly Asp Pro Val
257 85 90 95
258 Ala Glu Ser Val Trp Glu Leu Asp Cys Glu Gly Glu Ile Ser Leu Asp
259 100 105 110
260 Lys Ile Thr Pro Phe Thr Pro Asn Gly Phe His
261 115 120

```

264 <210> SEQ ID NO: 15

265 <211> LENGTH: 47

266 <212> TYPE: PRT

267 <213> ORGANISM: Homo sapiens

269 <400> SEQUENCE: 15

```

270 Asn Pro Met Cys Tyr Ala Leu Cys Asn Lys Ala Phe Arg Asp Thr Phe
271 1 5 10 15
272 Arg Leu Leu Leu Leu Cys Arg Trp Asp Lys Arg Arg Trp Arg Lys Ile
273 20 25 30
274 Pro Lys Arg Pro Gly Ser Val His Arg Thr Pro Ser Arg Gln Cys
275 35 40 45

```

278 <210> SEQ ID NO: 16

279 <211> LENGTH: 31

280 <212> TYPE: PRT

281 <213> ORGANISM: Homo sapiens

283 <400> SEQUENCE: 16

```

284 Asn Pro Ala Cys Tyr Ala Leu Cys Asn Ala Thr Phe Lys Lys Thr Phe
285 1 5 10 15
286 Lys His Leu Leu Met Cys His Tyr Lys Asn Ile Gly Ala Thr Arg
287 20 25 30

```

290 <210> SEQ ID NO: 17

291 <211> LENGTH: 51

292 <212> TYPE: PRT

293 <213> ORGANISM: Homo sapiens

295 <400> SEQUENCE: 17

```

296 Asn Pro Val Cys Tyr Ala Leu Cys Asn Lys Thr Phe Arg Thr Thr Phe
297 1 5 10 15
298 Lys Met Leu Leu Leu Cys Gln Cys Asp Lys Lys Lys Arg Arg Lys Gln
299 20 25 30
300 Gln Tyr Gln Gln Arg Gln Ser Val Ile Phe His Lys Arg Ala Pro Glu
301 35 40 45
302 Gln Ala Leu

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/693,164

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Input Set : A:\033072-092.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 3,4 ✓
Seq#:2; Xaa Pos. 4 ✓

VERIFICATION SUMMARY

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Input Set : A:\033072-092.ST25.txt

Output Set: N:\CRF4\09232004\J693164.raw

L:32 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:36 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:49 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:53 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0